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GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			MAKI, STEVEN D	
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1733

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,314

Applicant(s)

LIEDERER, WERNER

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

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1) Applicant is advised that should claim 12 be found allowable, claim 13 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claims 12 and 13 have the same scope.

The use of different labels such as "first" verses "second" fails to create a difference in scope. Applicant disagrees since claim 9 requires the first through fifth structures to be sequentially arranged. This argument is not understood since claim 9 fails to require different lengths. For example, if the first structure has a length of 10 mm and the second structure has a length of 10 mm, then the sequence first then second (10 mm then 10 mm) is the same as the sequence second then first (10 mm then 10 mm). Even if one tire has a sequence of 10 mm and then 15 mm and another tire has a sequence of 15 mm and then 10 mm, nothing in claims 12 and 13 prevent 10 mm as being labeled as the first structure or second structure. Also, nothing in claims 12 and 13 prevent 15 mm from being labeled as either the first structure or second structure.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3) Claim 71 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 71, there is no antecedent basis for "the curved grooves".

4) Claim 72 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 72 depends on claim 43. Claim 72, which recites "each of the at least two base pitches is defined by at least two profile structures" (emphasis added) broadens claim 43, which recites "another of the at least two base pitches comprising at least three profile structures" (emphasis added).

5) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Cesarini et al

7) **Claims 1-6, 8-26, 30-31, 35-60, 67 and 71-72 are rejected under 35**

U.S.C. 102(b) as being anticipated by Cesarini et al (WO 99/16631).

Contrary to applicant's arguments, the claimed "circumferential groove" reads on a circumferential depression.

Cesarini et al discloses a pneumatic radial tire having alternating groups of transverse grooves 15. See figure 1-3. The number of grooves in a group may be 3-7. In figure 2, a group of grooves has a pitch P. This pitch P is a "base pitch". At page 10, Cesarini et al teaches regulating the pitch value between individual grooves or the pitch value between groups of consecutive grooves. A group of grooves constitutes a base pitch and Cesarini et al teaches varying the value of this base pitch. See page 10 lines 21-26. Cesarini et al therefore teaches base pitches having different circumferential lengths. The claimed profile structures read on the land portions between adjacent transverse groove shoulder portions 16, the land portions between adjacent notches 28 or the land portions between the transverse groove shoulder portion 16 and notch 28. In the figure 3 embodiment, a central depression ("circumferential groove") is located at the equatorial plane of the tire. In the claims "circumferential groove" reads on circumferential depression. As to claim 43, note circumferential grooves 21,22.

As claim 1 ("straight circumferential groove"), Cesarini's circumferential depression is "straight". See page 11 lines 16-32 and figure 3. As to each of the

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grooves extending to the circumferential grooves, Cesarini discloses the longest groove of each group having pitch P as extending to and crossing the circumferential depression (a specific type of circumferential groove). The longest groove of the group of grooves in Cesarini's group directly corresponds to groove 6 in applicant's disclosure. It is noted that Cesarini's group has only one longest groove and each of applicant's disclosed base pitches has only one groove 6. See applicant's figure.

As to claims 71 and 72, Cesarini's base pitch P has only one of the longest grooves. See indication of pitch P in figure 3.

8) Claims 1-64, 66-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cesarini et al in view of Japan 408 (JP 4-154408) and optionally Europe 436 (EP 268436).

Cesarini et al is considered to anticipate claim 1. In any event, Japan 408 discloses a pneumatic radial tire having a size such as 225/50R16 (bottom left on page 3). See figures 1-3 and abstracts. The claimed base pitches correspond to Japan 408's base pitches A, B and C. The claimed cross groove(s) correspond to the "gently slant grooves" 4 which are (a) located between the pitch boundaries and (b) inclined at 60-70 degrees with respect to the circumferential direction. For example, pitch C in figure 1 has four cross grooves. The gently slant grooves are connected via a curved portion to "steeply slant grooves" 4, which (a) extend toward the equatorial plane and (b) are inclined at an angle of 10-20 degrees with respect to the circumferential direction. The claimed profile structures correspond to the land portions separated by the above noted gently slant grooves. As can be seen from figures 1 and 2, the land portions separated

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by the gently slant grooves have alternating different length. For example, in the far right pitch B in figure 1, the lines from reference numeral 9 indicate two land portions having a longer length than the land portion therebetween and the circumferentially next land portion. Furthermore, pitch B also includes part of two land portions at the boundaries thereof. These two parts ("profile structures") have a length less than the length of either of the alternating land portions. Pitch B therefore has three different length "profile structures". It would have been obvious to one of ordinary skill in the art to provide Cesarini et al's base pitches P with different circumferential lengths since (1) Cesarini et al teaches regulating the pitch value between the *groups* of consecutive grooves to reduce noise (page 10) and (2) Japan 408, also directed to a directional tread pattern having alternating groups of grooves, teaches reducing noise by providing *groups* of transverse grooves with different pitches A, B and C (base pitches with different pitch lengths A, B and C) and optionally (3) Europe 436 suggests reducing noise by providing *groups* of transverse grooves with different circumferential pitch lengths such as LG1, LG2, LG3, etc.

Japan 408 / Europe 436's pitching technique is applicable to Cesarini et al since Cesarini et al teaches regulating (varying) the pitch of groups of grooves. See page 10.

As claim 1 ("straight circumferential groove"), Cesarini's circumferential depression is "straight". See page 11 lines 16-32 and figure 3. As to each of the grooves extending to the circumferential grooves, Cesarini discloses the longest groove of each group having pitch P as extending to and crossing the circumferential depression (a specific type of circumferential groove). The longest groove of the group

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of grooves in Cesarini's group directly corresponds to groove 6 in applicant's disclosure. It is noted that Cesarini's group has only one longest groove and each of applicant's disclosed base pitches has only one groove 6. See applicant's figure.

As to claim 43 (each of the grooves crossing one of the circumferential grooves"), each longest groove of each group crosses one of the circumferential grooves 21.

As to claim 2, the tire is radial.

As to claim 3, Cesaarini et al suggests 3-7 grooves in each group.

As to claim 4, the pitches are for the tread.

As to claim 5, Japan 408 shows a specific sequence in figure 1 of A, C, C, B, C, C, B, C, etc.

As to claims 6-26, 32, 45-59, and 67-68, it would have been obvious to provide the profile structures / cross grooves as claimed in view of (1) Cesarini et al's suggestion that the pitch value between individual adjoining grooves of the group of the 3-7 grooves may be regulated to reduce noise or can be the same pitch p and optionally (2) Europe 436's suggestion to use different pitch lengths for blocks (land portions between transverse grooves) and different pitch sequences within the groups having different pitch lengths in the tire having reduced noise.

As to claims 27-29, the claimed pitch ratio would have been obvious in view of Europe 436's suggestion to use a max length to min length ratio of 1.5-1.9 for the land portions separated by the transverse grooves.

As to claims 30-31, note narrow notches 28.

As to claims 33-34, note notch 28 and transverse groove shoulder portion 16.

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As to claims 35-37 and 39-41, note the tread pattern of figure 2 or figure 3.

As to claims 38 and 43-44, note the curved portion 19.

As to claims 42 and 60 (method), Cesarini et al and Japan 408 teach arranging the base pitches and teach a pneumatic radial tire, which one of ordinary skill in the art would readily understand is made by a method of manufacturing a tire.

As to claims 61-64, note the central depression.

As to claim 66, note grooves 21, 22.

As to claims 71-73, Cesarini's base pitch P has only one of the longest grooves.

See indication of pitch P in figure 3.

Europe 822

9) **Claims 1-7, 9-10, 19-24, 35-40, 61, 62, 67, 69-71 and 73 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Europe 822 (EP 970822).**

Contrary to applicant's arguments, the profile structures in a base pitch of Europe 822 have different lengths. For example, in base pitch BLmin in figure 1, one profile structure has a length of a fraction of Lmax + a fraction of Lmin whereas the other profile structure has a length of a fraction of Lmin and a fraction of Lmin.

Europe 822 teaches a vehicle tire having a tread pattern as shown in figures 1 and 2. In figures 1-2, the base pitches have the different lengths BLmax and BLmin and two shoulder blocks 3a are provided for each central block 2a. In each base pitch is a cross groove separating two shoulder blocks. Europe 822 teaches that three shoulder

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blocks may be used for each central block 2a. When three shoulder blocks are used, each base pitch BLmax and BLmin comprises two cross grooves.

Claim 1 is anticipated by Europe 822's vehicle tire. Claim 1 reads on each of the one base pitch and the another base pitch each having two cross grooves. Claim 1 fails to require a different number of cross grooves in the base pitches. The claimed profile structures read on the shoulder blocks 3a, which can number three within each base pitch. In any event: It would have been obvious to one of ordinary skill in the art to provide Europe 822's tire with two base pitches having different circumferential lengths (e.g. BLmin, BLmax) such that each base pitch comprises three shoulder blocks (profile structures) and two cross grooves since (1) Europe 822, directed to reducing noise and obtaining uniform wear, shows the tread has having two different length base pitches wherein each base pitch comprises one central block, two shoulder blocks and one cross groove and (2) Europe 822 suggests using three shoulder blocks for one central block as an alternative to using two shoulder blocks for one central block.

As to claim 1 ("straight circumferential groove"), German 822 discloses using straight circumferential grooves. See figures 1 and 6.

As to claims 71 and 73, the sub pitches (e.g. Lmax, Lmin) determine the arrangement of the grooves and blocks. The geometric pattern of one long block, two short blocks, one long transverse groove, one cross groove and one pocket groove repeats. Europe 822's tread pattern therefore can be interpreted as defining base pitches being "defined by at least two profile structures, at least one cross-groove, and only one of the grooves" as in claims 71 and 73.

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10) Claims 63-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Europe 822 as applied above and further in view of Europe 436.

As to claims 63-65, it would have been obvious to one of ordinary skill in the art to use three base pitches instead of two base pitches for Europe 822's tread in view of Europe 436's suggestion to use three base pitches for a tire tread to reduce noise wherein each base pitch, like that of Europe 822, comprises plural blocks and transverse grooves.

Peda et al

11) Claims 1, 3-7, 9, 11-15, 18-23, 30-37, 42, 68 and 71 are rejected under 35 U.S.C. 102(a), (b), (e) as being anticipated by Peda et al (US 2002/0144762).

See abstract, figure 1, figure 2, paragraphs 13-17.

The claimed circumferential groove reads on the center groove 4. The claimed base pitch reads on Peda et al's base pitch comprising two of the shoulder blocks, the sipes, the transverse groove 3 extending to the center groove and the transverse groove extending partially into the larger center block. Figure 2. The claimed cross groove(s) read on the groove extending partially into the long block and/or the sipes (small grooves). The claimed profile structures read on the blocks or the block elements separated by the separated by the sipes / grooves.

As to claim 1 (straight circumferential groove), Preda et al's center groove is straight. See figure 2. As to claim 71, see figure 2.

Great Britain

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12) Claims 1-2, 4-6, 20-23, 31, 35-42 and 71 are rejected under 35 U.S.C. 102(a), (b) as being anticipated by Great Britain (GB 2376217).

See abstract, figure 1, page 6 lines 7-10, page 10 lines 23-25, page 11 lines 1-5.

The claimed method steps are inherent in the manufacture of Great Britain's tire.

The claimed circumferential groove arranged in a central area of the tread reads on the central circumferential groove 2 at the centerline. The claimed base pitch reads on Great Britain's base pitch comprising lug groove 5, blocks 6B1 and subgroove 7. Each pitch therefore comprises two profile structures (blocks 6B1).

As to claim 1 (straight circumferential groove), Great Britain's center groove is straight. See figure 1.

As to claim 71, Great Britain's tread pattern has base pitches being "defined by at least two profile structures, at least one cross-groove, and only one of the grooves" as in claim 71 since Great Britain teaches arranging the grooves 5 at variable pitches.

13) Claims 1-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Great Britain in view of at least one of Europe 822, Peda et al and Europe 436 and optionally further in view of Japan 610 (JP 4-201610).

Great Britain is considered to anticipate claim 1. In any event, it would have been obvious to arrange Great Britain's grooves such that the resulting tread has different length base pitches comprising profile structures as claimed in view of Great Britain's teaching to arrange the lug grooves 5, which define a repeating geometric pattern, at variable pitches to reduce noise and in view of the suggestion from at least one of Europe 822, Peda et al and Europe 436 to use pitches of different lengths to

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reduce noise of a tire tread wherein the pitch of the tire tread is defined by a repeating geometric unit. With respect to circumferential grooves and curved diagonal grooves, Great Britain teaches this subject matter. See figure 1. The claimed profile structures and cross grooves would have been obvious in view of (1) Great Britain's teaching to divide the block 6 with a cross groove 7 and /or (2) Peda et al's teaching to divide a block with sipes. The claimed pitch ratio (claim 27+) is suggested by Europe 436. With respect to the application of Peda et al's teaching to divide a block with sipes to provide winter traction and claims such as 10, 6, 17, 32 and 66-70, Japan 610 suggests spacing the sipes at different distances to reduce noise and wear.

As to claim 1 (straight circumferential groove), Great Britain's center groove is straight. See figure 1.

As to claims 71-73, Great Britain's tread pattern has base pitches being "defined by at least two profile structures, at least one cross-groove, and only one of the grooves" as in claim 71 since Great Britain teaches arranging the grooves 5 at variable pitches. Peda et al contains the same teaching; and as can be seen from figure 2, Peda et al's base pitch includes only one of the grooves that separates the long blocks. Great Britain and Peda et al therefore suggest defining the base pitch such that it includes only one of the grooves as set forth in claims 71-73.

Remarks

14) Applicant's arguments filed 7-5-06 have been fully considered but they are not persuasive.

The rejection using Japan 408 has been withdrawn since Japan 408 teaches a zigzag circumferential groove instead of a straight circumferential groove.

Applicant argues that Cesarani's disclosure is limited to each consecutive set [group] of grooves has the same length. Applicant is incorrect because Cesarani teaches reducing noise by "regulating ... the pitch value between groups of consecutive grooves, meaning by this term the distance, measured along the circumferential development of the tread, between corresponding transversal grooves (for instance, those of greatest length) of consecutive grooves." (page 10). One of ordinary skill in the art would readily understand and interpret "regulating" pitch value to reduce noise as meaning changing pitch value to reduce noise. This is especially true since page 10 of Cesarani refers to "mean pitch". The expression "mean pitch" would be meaningless if applicant's argument that the pitches must have the same length is true.

With respect to the word "grooves", examiner characterizes each of longitudinal slots or disconnection grooves 21, 22 and the circumferential depression having a maximum depth of 40-60% of the depth of the transversal grooves and a width of 15-25 mm as being a circumferential groove. Applicant has provided no explanation why claim 1 excludes circumferential grooves having width of 15-25 mm and a depth of 2 mm to 5.4 mm.

Applicant's argument that each of grooves 15a to 15e do not extend to the circumferential depression is off-point since the longest groove 15a extends to the circumferential depression. Claim 1 requires nothing more. Examiner reminds applicant that only applicant's longest groove 6 of the base pitch extends to the

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circumferential groove 5. See applicant's figure 1 in all of the illustrated base pitches have only one longest groove extending to the center circumferential groove 5.

With respect to Preda, applicant argues that Peda et al's figure 2 merely shows base pitches L1 and L2 with one profile structure each. Applicant is incorrect. Pitches P1 and P2 in Preda cannot be base pitches since the geometric pattern of the long block is not repeated within either pitch P1 or pitch P2. Pitches P1 and P2 in Peda et al correspond to applicant's sub pitches (e.g. K_B).

Applicant argues that it is not apparent that Great Britain can be read to disclose or suggest the claimed at least two base pitches. Applicant is incorrect. Great Britain's base pitch comprises one long groove, one cross groove, one long block and two short blocks. This directly corresponds to applicant's disclosed and claimed base pitch. Compare the structure in applicant's base pitch IM2 with the above noted structure in Great Britain. In view of Great Britain's teaching to use different pitches for grooves 5, the base pitches including grooves 5 also have different lengths.

With respect to applicant's arguments regarding Europe 822, examiner comments that Europe 822 discloses base pitches having different lengths such as BLmax and BLmin and that the profile structures have different lengths. See figure 1.

With respect to the 103 rejection using Cesarini et al, Japan 408 and the optional Europe 436 provide ample motivation (noise reduction) to provide base pitches with different lengths.

With respect to the combination of Europe 822 and Europe 436, applicant offers no explanation why the use of three different length base pitches instead of merely two

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would not have been obvious in light of the teachings of these references. Europe 436 offers ample motivation (noise reduction) to use more than two different lengths for a base pitch.

Applicant's arguments regarding the 103 rejection using Great Britain are not persuasive since Great Britain's tread contains a repeating geometric pattern (base pitch) comprising groups of grooves and at least one of Europe 822, Peda et al and Europe 436 provide ample motivation (noise reduction) to provide a repeating geometric pattern with different lengths. With respect to Japan 610, this reference teaches different lengths for profile structures separated by sipes within a pitch having a different length than another pitch.

15) No claim is allowed.

16) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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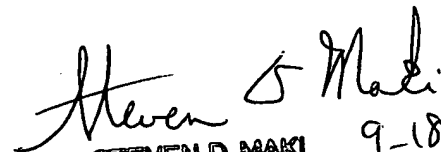
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
September 18, 2006


STEVEN D. MAKI
PRIMARY EXAMINER
9-18-06